

WHAT IS CLAIMED IS:

1. A composite magnetic material comprising generally spherical magnetic metal particles of at least one type
5 consisting essentially of single crystal grains, having a mean particle size of 0.1 to 10 μm and coated over at least a part of their surface with an insulating layer, the coated metal particles being dispersed in a resin.
- 10 2. The composite magnetic material of claim 1 wherein said insulating layer has a thickness of 0.005 to 5 μm .
3. The composite magnetic material of claim 1 wherein 30 to 98% by weight of said coated metal particles are
15 dispersed in said resin.
4. A magnetic molding material comprising the composite magnetic material of claim 1.
- 20 5. A magnetic powder compression molding material comprising the composite magnetic material of claim 1 wherein 90 to 98% by weight of said coated metal particles are dispersed in said resin.
- 25 6. A magnetic paint comprising the composite magnetic material of claim 1.
7. A prepreg comprising the composite magnetic material of claim 1.
- 30 8. A prepreg comprising the composite magnetic material of claim 1 and a glass cloth embedded therein.
9. The prepreg of claim 7 further comprising a copper
35 foil clad thereto.

10. A magnetic substrate comprising the composite magnetic material of claim 1 or the prepreg of claim 7.
11. The magnetic substrate of claim 10 further comprising a copper foil clad thereto.
12. A composite dielectric material comprising generally spherical metal particles of at least one type having a mean particle size of 0.1 to 10 μm and coated over at least a part of their surface with a dielectric layer, the coated particles being dispersed in a resin.
13. The composite dielectric material of claim 12 wherein said dielectric layer has a thickness of 0.005 to 5 μm .
14. The composite dielectric material of claim 12 wherein 30 to 98% by weight of said coated metal particles are dispersed in said resin.
15. The composite dielectric material of claim 12 wherein said metal particles are formed of at least one metal selected from the group consisting of silver, gold, platinum, palladium, copper, nickel, iron, aluminum, molybdenum, tungsten, and alloys and mixtures thereof.
16. The composite dielectric material of claim 12 wherein said dielectric layer is formed of an oxide dielectric material having a higher dielectric constant than said resin.
17. A molding material comprising the composite dielectric material of claim 12.
18. A powder compression molding material comprising the composite dielectric material of claim 12 wherein 90 to 98% by weight of said coated metal particles are dispersed in

said resin.

19. A paint comprising the composite dielectric material of claim 12.

5

20. A prepreg comprising the composite dielectric material of claim 12.

21. A prepreg comprising the composite dielectric material of claim 12 and a glass cloth embedded therein.

10

22. The prepreg of claim 20 further comprising a copper foil clad thereto.

15 23. A substrate comprising the material of claim 12.

24. The substrate of claim 23 further comprising a copper foil clad thereto.

20 25. An electronic part comprising a composite dielectric material comprising generally spherical metal particles of at least one type having a mean particle size of 0.1 to 10 μm and coated over at least a part of their surface with a dielectric layer, the coated particles being dispersed in a resin.

25

26. The electronic part of claim 25 wherein said dielectric layer has a thickness of 0.005 to 2 μm .

30 27. An electronic part comprising a composite material comprising generally spherical metal particles of at least one type consisting essentially of single crystal grains, having a mean particle size of 0.1 to 10 μm and coated over at least a part of their surface with an insulating layer,

35

the coated metal particles being dispersed in a resin.

28. An electronic part comprising a composite material comprising generally spherical magnetic metal particles of at least one type consisting essentially of single crystal grains, having a mean particle size of 0.1 to 10 μm and
5 coated over at least a part of their surface with an insulating layer, the coated metal particles being dispersed in a resin.

29. The electronic part of claim 27 wherein said
10 insulating layer has a thickness of 0.005 to 2 μm .

30. The electronic part of claim 25 comprising said composite dielectric material, said composite material or a combination of said composite dielectric material with said
15 composite material.

31. The electronic part of claim 25 wherein said composite dielectric material or said composite material includes at least one layer having a glass cloth embedded
20 in a resin.